

SAN JOAQUIN RIVER TRANSPORTATION STUDY

DRAFT FINAL EXECUTIVE SUMMARY

Prepared for

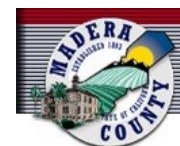


Madera County Planning Department

June 23, 2008



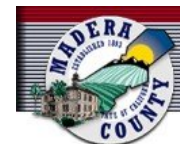
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San Joaquin River Transportation Study

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1.0 INTRODUCTION

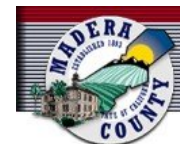
1.1 PURPOSE OF THE SAN JOAQUIN RIVER TRANSPORTATION STUDY

The Fresno-Madera Metropolitan Area is California's 5th most populous metropolitan area. The City of Fresno is the 6th largest city in the state and largest city in the Central Valley with 481,000 persons (CA Department of Finance, 2007). Both Madera and Fresno County are among the fastest growing counties in California. Combined these counties added over 20,000 persons since 2006. By 2030, Fresno County is estimated to reach 1.3 million persons and surpass 1.65 million by 2050. Madera County is anticipated to reach 220,000 persons by 2030 and surpass 300,000 persons by 2050.

Today, the area is the largest in the state without an advanced mass transit system such as light rail. The private automobile is the dominant form of transportation. Population and vehicle miles traveled (VMT) in the metropolitan area grew at a much faster rate during the last 20 years than in other areas of the State. The population increased approximately 56%, from nearly 2.1 million in 1981 to over 3.2 million in 2000. During the same period, the daily VMT more than doubled, from about 35 million miles per day in 1981 to over 82 million miles per day in 2000. This represents a 136% increase. As these figures show, VMT is growing at more than twice the rate of population growth, this has had tremendous negative effects on the Region's transportation system.

In general, Madera, Fresno, Kings, Tulare, and part of Merced County are impacted by the Fresno/Clovis metropolitan area. As Fresno continues to grow in population, urbanized areas will continue to sprawl into suburban and rural areas. The Rio Mesa Area Plan, the Castle Cooke development, Gateway Village, Friant Ranch and the Gunner Ranch Area Plan areas are preparing to meet the housing demand of greater Fresno's expanding population.

Eastern Madera and northern Fresno County are developing and becoming urbanized at an impressive rate. Valley Children's Hospital is located in this study area and associated medical development is occurring on surrounding land near the hospital. There are also plans to add residential and commercial developments north of the San Joaquin River both east and west of the SR-41. This growth pattern has necessitated planning efforts to provide for improved east-west mobility in the region, generally extending from SR-99 on the west, to Millerton Lake/Friant Dam to the east. This east-west route would connect with existing north-south transportation facilities to improve mobility in the growing areas and reduce anticipated congestion that is expected to result if future transportation facilities are not incorporated into the region's growth plans. Another important aspect of a new east-west transportation corridor is that it would provide an additional vehicular crossing of the San Joaquin River. SR-41 currently provides the primary river crossing opportunity in the area. Since development and traffic patterns indicate that there will be a growing need to travel between the two sides of the river, the single crossing point at SR-41 will become more congested over time. Widening the SR-41 crossing will accommodate some traffic growth; however, eventually additional river crossings will be needed.



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The Rio Mesa Plan is a community master plan effort to develop the southeast portion of Madera County. It envisions a growth of 100,000 persons with 30,000 dwelling units. In addition, commercial uses are anticipated to generate 20,000 jobs by its build-out year. This projected population would be larger than the population size of Clovis (92,269) or Santa Monica (91,124). The Rio Mesa Plan proposes 3 “villages” in its development. Phase 1, North Fork Village-1 proposes building 2,996 dwelling units, mixed use development, and commercial/office uses. It is estimated to generate nearly 9,000 residents and 3,350 jobs. In the future, this planned development will require at least one additional river crossing to relieve increasing traffic congestion on SR-41 and improve mobility.

The effort for an additional river crossing between Fresno and Madera counties began in the mid-1990’s with the East-West Corridor Study-Phase I. It considered 9 potential corridor locations and screened them into the 4 most feasible. In the early 2000’s, the East-West Corridor Study-Phase II was conducted. It recommended a preferred alternative based on the least impact to the environment and most feasible in terms of engineering, since the facility is located at one of the narrowest reaches of the river. Both factors influence the project’s cost-effectiveness, constructability, and political liability.

1.2 PROJECT LIMITS

The San Joaquin River Transportation Study project covers parts of two Central California counties, Fresno and Madera. It is situated in southeast Madera County and an area northeast of Fresno. More specifically, the study area straddles along the San Joaquin River between Millerton Lake and State Route 145. The project area boundaries are:

To the east, SR-145, traversing the City of Madera and intersecting SR-99;

To the west, Auberry Road, converting to Minnewwa Avenue at its southern extent;

To the south, Shaw Avenue, extending from the City of Fresno to Clovis;

To the North, SR-145, converting to Millerton Road;

The areas between SR-145 and SR-41 are predominantly undeveloped lands that are being master planned for residential and commercial uses. Currently, the area is primarily zoned a combination of Agricultural Rural/Foothills and Agricultural Rural/Exclusive. A majority of the area has been regularly leased to cattle grazing. Madera County is in the process of adopting new zoning ordinances to allow the development of residential, commercial, and mixed uses. These new developments will require infrastructure to accommodate its planned uses including transportation upgrades and new facilities. Improvements will include mitigation to existing intersections, road widening, and other roadway enhancements.

1.3 MISSION STATEMENT AND PROJECT OBJECTIVES

Early in the process of developing this study, the participating agencies prepared a mission statement that was approved by the Steering Committee. This mission statement dated July 2005, is as follows:



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“To retain the service of an independent transportation planning/engineering firm to evaluate long range transportation needs based on the adopted General Plans for Fresno and Madera Counties and the Cities of Clovis, Fresno and Madera. The technical study will build upon validated data from prior studies, and be used to develop a regional transportation plan for the San Joaquin River area and the interconnection of the planned population centers of the two counties and three cities. The study would identify transportation corridors, the method to preserve selected transportation corridors, and identify potential funding strategies.”

The purpose of this study is to analyze and evaluate anticipated development activity in the Fresno-Madera metropolitan area and its effects on the performance of the planned transportation system to determine the most feasible highway alignment alternatives to cross the San Joaquin River. The region has all ready established the fact that there is a lack of capacity between the two Counties and that recently approved major developments will put more pressure on the SR-41 highway corridor. A previous East-West Corridor Study performed by Fresno COG analyzed alternative crossings as far east as SR-168. The information generated in this study will add to that database and allow us to develop alternative San Joaquin River crossings that will provide additional capacity in the north-south direction as far east as the Friant Dam. In fact, this analysis will look at the minimum of five potential crossings in the enlarged study area.

The goals of this project have been established by the Steering Committee as set forth in the mission statement as follows:

- Develop an accurate understanding of the study area demand through a project level model of the area and use that data to determine transportation needs;
- Identify potential alternative crossings and related highway alignments;
- Analyze the alignment alternatives for engineering and environmental constraints and capital costs;
- Define the short, medium and long term improvement strategies to meet identified needs including the preservation of right of ways;
- Develop consensus among the stakeholders on the next steps in the project development process.

2.0 MOBILITY PROBLEM

This section identifies the mobility constraints and problems within the SJRTS study area that are the primary causes for congestion. Existing mobility deficiencies will be explained in the context of existing land use patterns. The source for existing land uses will be the approved baseline MCTC and COFCG



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land use database, and the URS Team's local familiarity. It is URS' belief that there is enough available information to develop an accurate and fair assessment of existing conditions without performing extensive additional data collection and analysis. We have used this information to create a project setting and existing conditions analysis working paper. The efficiency of this effort will allow us to focus on the future needs of the study area and reflect our understanding of the specific needs and recommendations.

2.1 FREEWAY AND ARTERIAL STREET ISSUES

Travel demand is exceeding existing freeway and arterial capacity, resulting in substantial delays during both peak and non-peak periods. Traffic throughout the SJRTS study area is currently constrained to a limited number of travel corridors to serve those that live and work in as well as pass through the SJRTS study area. Congestion on study area roadways is projected to grow up to 17% by the year 2025.

The SJRTS study area serves as a major north-south mobility corridor from Madera to Fresno County for both regional and local travel. This vital corridor serves different purposes and travel modes and provides mobility and economic benefits to the region that must be maintained. The freeways are commuter routes connecting residents of Madera County with jobs in other parts of the region.

The SJRTS study area serves major commercial hubs and activity centers. This vital corridor provides regional access to downtown Fresno, Fresno State and the FYI airport terminal. North of the SJRTS study area, the corridor provides access to the upper San Joaquin Valley and into the San Francisco and Sacramento areas. South of the SJRTS study area, the corridor provides access to San Joaquin Valley and LA Basins.

Traffic demand along the corridor is already high with some freeway sections carrying over xx trips per day. With the projected increase in employment and households (particularly in the Rio Mesa planning area), travel demand will increase significantly over the next 30 years, continuing to tax the existing and planned transportation infrastructure. Without multi-modal transportation improvements along the corridor, peak-hour congestion will increase in duration and intensity. However, implementation of any transportation solution should satisfy not only mobility needs but also be compatible with and enhance local community visions.

Operational chokepoints exist along segments of SR-99 and SR-41 within the study area including over the river bridges. There is also the issue of freeway continuity within the region that adds to demand on existing facilities across the river.

Major arterials play an important role in the SJRTS study area, supporting the freeway system by providing alternative corridors for regional north-south travel, as well as providing local access and circulation for the residents and businesses of the central valley. An important consideration in defining transportation improvement alternatives during this SJRTS Study will be attention to the balance of traffic between major arterials and freeway facilities.



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2.2 OPERATIONS AND SAFETY

Operational and capacity deficiencies along the freeways result in chokepoints and high-volume, operationally unstable areas such as those along SR-99 and SR-41, making these areas conducive to higher incident rates. Incident-related congestion on freeways places further pressure on the arterial system, as traffic diverts from congested freeways onto surface streets.

Apart from the general congestion that occurs during the peak periods, bottlenecks along the SJRTS study area freeways occur at the merge points between the on-ramp and the mainline freeway. More specifically, bottlenecks occur when the on-ramp is a collector/distributor road, which typically carries higher volumes of traffic. Due to these high volumes on the on-ramps and the limited capacity of the mainline, the merging area fails and results in a choke point. Other bottlenecks along the mainline occur due to insufficient stopping sight distance, non-standard designs and at locations where weaving is required between interchanges and freeways. Currently, Caltrans is attempting to address this problem by proposing either to add auxiliary lanes between the interchanges or to extend the existing auxiliary lanes and provide additional lanes at on and off ramps.

The high demand, lack of capacity and recurring incidents create the need for improved safety within the SJRTS study area on the freeways and arterial system. As future volumes increase, the number of accidents is estimated to increase in the SJRTS study area.

2.3 MAJOR PHYSICAL CONSTRAINTS

The SJRTS study area currently lacks alternative modes and routes for regional trips. For example, regional rail only serves the very periphery of the SJRTS study area and is not very practical for most workers or residents in this area to use. Instead, private automobiles are used for the vast majority of trips. As a result, longer vehicle trips are required for people traveling to, from and through the SJRTS study area.

2.4 TRANSIT ISSUES

The SJRTS study area lacks public transportation connectivity between residences and businesses within the SJRTS study area and connecting the SJRTS study area to neighboring areas and the region. This lack of connectivity manifests itself through slower travel times and frequent transfers, which have the local residents expressing interest in newer and faster services. This lack of transit alternatives also impacts the freeway and street network in terms of additional single occupancy vehicles generated on local roadways.

3.0 CANDIDATE PROJECT ALTERNATIVES

The San Joaquin River Transportation study examined a no-build condition and numerous build alternatives. Originally, there were over eight (8) build alternatives considered. They have been screened down to 4 basic build alternatives by the SJRTS Technical Committee and consultant team through the process of collecting available data and analysis. All build alternatives are located between Copper



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Avenue and Millerton Lake. All alternatives require improvements of existing roadway facilities and construction of new facilities. The four build alternatives are displayed in **Figure 3-1** along with the alternatives that were screened out during this process.

The no-build alternative serves as a baseline to compare build alternatives and future traffic volumes. In the following sections, the project alternatives are defined and their results illustrated. The analysis utilized 50 locations where traffic volumes were taken to compare performance across alternatives and Level of Service (LOS) as interpreted based on the Fresno County Regional Transportation Plan Roadway Capacity table¹. In addition, volume over capacity (V/C) ratios were modeled to provide another indicator of traffic congestion.

3.1 PROJECT MODEL

The project model has been developed to achieve the objective's listed above. It incorporated parts of the Fresno County and Madera County models within defined project limits. In addition, this model required the preparation of new land use data and revisions of existing model transportation networks. Subsequently, the project model was calibrated and its results were reviewed by Technical Committee members for approval.

The SJRTS Technical Subcommittee reviewed and approved the project model methods and results. The subcommittee established criteria for the model's acceptance. The four criteria set by the subcommittee include:

1. Directional splits on State Route (SR) 99 and SR 41 in both the a.m. and p.m. peak hours should be consistent with the Fresno County Model (COFCG Model);
2. Trips generated and attracted in both a.m. and p.m. peak hours in Fresno County should be almost consistent between the Project Model and COFCG Model;
3. The differences in traffic volumes along some major corridors were expected to be different due to the new trip distribution that accounts for a gravity function between the two counties; and
4. The future volumes were expected to be higher than the counts in general, and consistent with future land use data.

Working Paper No. 2 described the model preparation process and criteria implemented for the model acceptance process. It also evaluated the No Build and Build Alternative model projections and compared results. Finally, the alternative analysis was conducted to evaluate performance and feasibility solely on forecast model demand results.

3.2 SUMMARY OF FINDINGS

The SJRTS Technical Committee began the alternative screening process with 8 build alternatives developed from previous work efforts and a no-build alternative. Based on discussions at multiple TAC meetings, 4 build and one no-build alternative were selected for further consideration. The no-build alternative is the baseline to be used as a point of comparison.

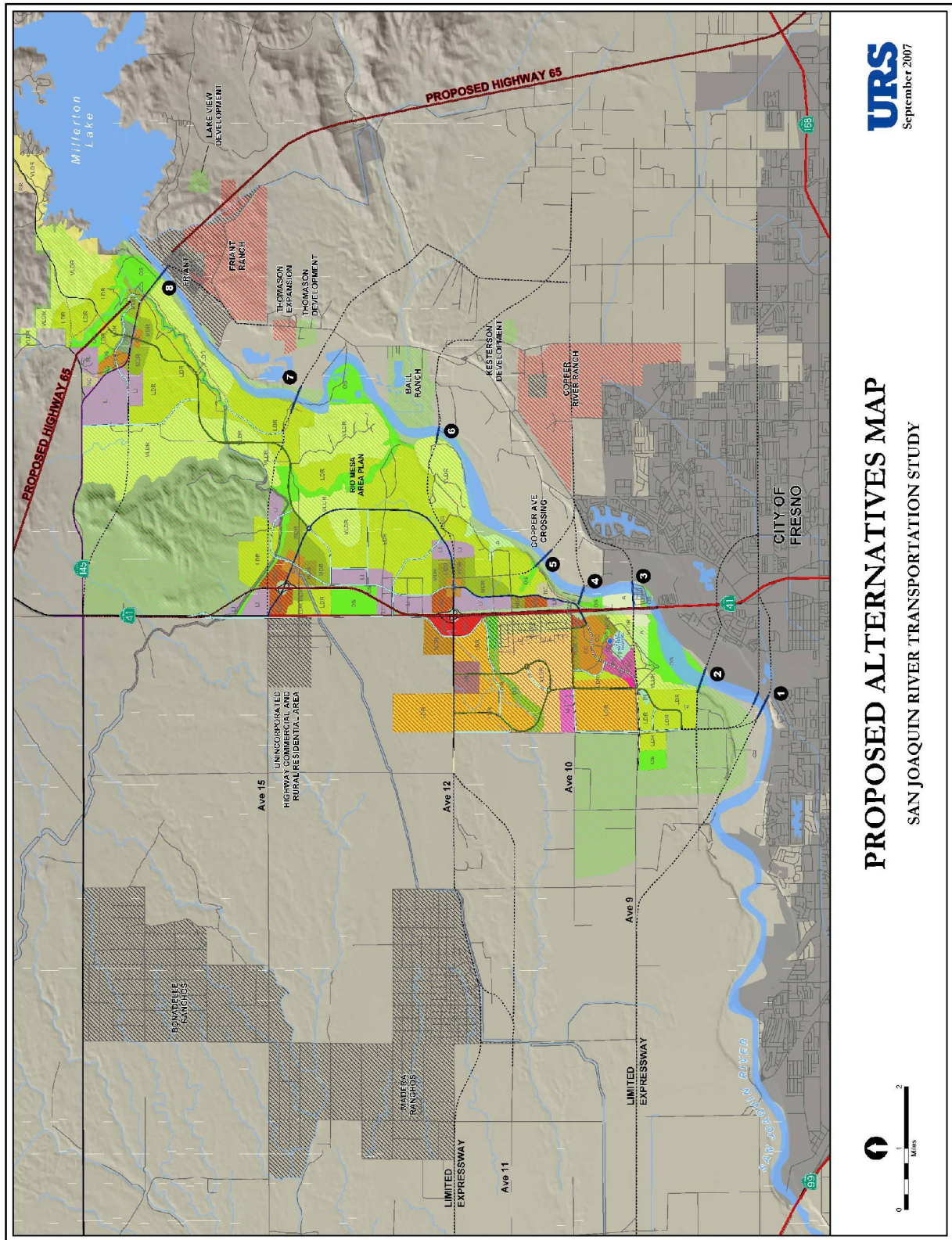


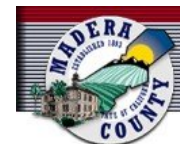
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Based on the results of the San Joaquin River Transportation project model, the construction of a river crossing has high demand and would be feasible from a purely traffic demand perspective. A new bridge would attract between 33,000 and 58,000 daily two way trips. All build alternatives would have notable traffic congestion relief on SR-41 but negligible impacts on SR-99. A river crossing would also have moderate effects along east-west traffic on most of Herndon Avenue. However, all build alternatives have favorable traffic congestion relief on SR-168, Friant Road, and Copper Avenue. SR-145 also experiences traffic congestion from a new bridge and will attract more traffic with widening of the bridge on Road 206. Environmental and engineering constraints were considered along with these traffic volume forecasts to select the most feasible locally preferred strategy in subsequent deliverables.

¹ These 50 locations are key roadway segments across the study area.

Figure 3-1: Proposed Alternative Map



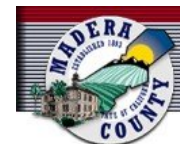


4.0 RECOMMENDED ALTERNATIVES FOR FURTHER STUDY

The SJRTS Technical Committee began the alternative screening process with more than 8 build alternatives including various alignment options and a no-build alternative. Based on discussions at multiple TAC meetings and analysis of available data and new data developed for this study, four (4) build alternatives were selected for further comparison against the No Build scenario. Additional information was utilized as provided by Caltrans and the Blueprint planning efforts related to the need and alignment of the proposed Highway 65 (as a regional facility) and the future Metro-Rural Loop system. Based on the results of the San Joaquin River Transportation project model, the construction of a river crossing has high demand and would be feasible from a purely traffic congestion perspective.

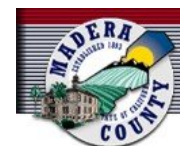
Based on this analysis, the Locally Preferred Strategy (LPS) as proposed would include the development of one of the alternatives adjacent to the SR-41 crossing in Alternatives 5 or 6. Further analysis and study is needed to determine which of the two alignments would be most cost effective but this crossing would provide local access between the two counties from Rio Mesa to the city of Fresno and would take local trips off of SR-41. The LPS should also include the development of Alternative 7: the crossing from Avenue 15 to Auberry Road adjacent to Lost Lake that would tie into and require an extension of Clovis Avenue to the City of Clovis. This alignment would act as a regional high capacity crossing in the initial phases of development and would eventually become the proposed alignment of Highway 65 and an integral component of the Metro-Rural Loop. The final element of the LPS would be Alternative 8 and include the widening the Road 206 bridge, reconstruction of the intersection with Friant Road/Millerton Road and a new 6 Lane facility extending along the Friant-Kern canal around Friant Ranch south to Clovis Avenue with a future interchange at Highway 65. In essence, this would provide a Locally Preferred Strategy with the capacity to enhance mobility in the future and take demand from the existing crossings that are available at the present.

Based on the analysis process that was followed and the input provided by the SJRTS Technical and Steering Committees, four final alignment alternatives have been developed and analyzed for impacts and benefits. All four alternatives provide the region with the benefit of additional capacity and improved mobility. They also have potential negative traffic and environmental impacts and challenges to completing construction.



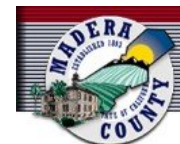
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San Joaquin River Transportation Study: Comparative Evaluation of Potential Alternatives				
DESIGNATION	Alternative 5	Alternative 6	Alternative 7	Alternative 8
DESCRIPTION	Avenue 12 to Copper Avenue	Avenue 12 to Willow Avenue and Friant Road	Avenue 15 to Clovis Avenue (With SR 65)	SR 145 to Road 206 and Friant Road
TYPE OF FACILITY OWNER / OPERATOR	Local Collector County of Madera & City of Fresno	Local Collector County of Fresno/Madera	State Expressway County/Caltrans and PPP	County Road County of Madera County of Fresno
EVALUATION CRITERIA				
A. REGIONAL CONNECTIVITY				
A.1 Interchanges	SR 41, Friant Road, and Copper Avenue	SR 41, Friant Road, and Willow Avenue	SR 41, Highway 65, and Friant Road	SR 145, Road 206, SR 168, & Friant Road
A.2 MRL / Highway 65	No Direct Connection	No Direct Connection	Direct Connection	Direct Connection
B. RIVER IMPACTS				
B.1 Physical Impacts to San Joaquin River	Moderate	Moderate	High	Minimal
B.2 Wetlands Impacts	Moderate	Moderate	High	Moderate
C. DEVELOPMENT/LAND USE IMPACT	Rio Mesa, Copper River Ranch	Rio Mesa, Ball Ranch, Kesterson Development	Rio Mesa, Thomson Development	Rio Mesa, Friant Ranch, Mirrabella, Millerton New Town, Lake View Development
D. PARKS AND RECREATION				
D.1 Bicycle and Hiking Trail Conflicts	Accommodated	Accommodated	Accommodated	Accommodated
D.2 Physical Impacts to Parks	None	None	Potential	None
D.3 Indirect Impacts to Parks	Moderate	Moderate	Potential for Significant Impacts	Moderate
D.4 Impacts to Golf Facility	Moderate	None	None	None



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E. UTILITIES - PG & E TRANSMISSION LINE				
E.1 Number of Poles Impacted	10	None Known	None Known	None Known
F. ENVIRONMENTAL ISSUES				
F.1 Biological Resources	Multiple Habitats	Multiple Habitats	Multiple Habitats	Multiple Habitats
F.2 Cultural Resources	Potential Impacts to Indian Tribes	Potential Impacts to Indian Tribes	Potential Impacts to Indian Tribes	Potential Impacts to Indian Tribes
F.3 Air Quality Impacts	Minor	Minor	moderate	Minor
F.4 Noise Impacts	Minor	Minor	significant	moderate
F.5 Visual Impacts	Bridge	Bridge	Bridge	Bridge/Roadway
G. EARTHWORK				
G.1 Material Volumes (Million Cubic Feet)	3.47	3.51	6.95	12.03
H. HAZARDOUS MATERIALS/WASTE				
H.1 Potential Issues	None Known	None Known	None Known	None Known
I. RIGHT OF WAY IMPACTS				
I.1 Total Area (Acres)	54.89	55.54	110.03	190.48
I.2 Estimated Cost (Million)	\$13.46	\$13.10	\$24.96	\$42.49
I.3 Full R/W Takes (Road Width) (Feet)	110	110	300	110
J. TRAFFIC CONSIDERATIONS				
J.1 Projected Corridor Volumes	50,000 ADT	57,500 ADT	33,500 ADT	54,500 ADT
J.2 No. of Intersection > LOS C (AM Pk-Hr)	5 (Out of 12)	5 (Out of 12)	6 (Out of 12)	5 (Out of 12)
J.3 No. of Intersection > LOS C (PM Pk-Hr)	8 (Out of 12)	7 (Out of 12)	8 (Out of 12)	4 (Out of 12)
K. CONSTRUCTION COSTS				
K.1 Roadway Costs (Million)	\$92.70	\$86.90	\$217.60	\$293.80
K.2 Structure Costs (Million)	\$32.00	\$5.00	\$31.00	\$24.00
K.3 Total Construction Costs (Million)	\$124.70	\$91.90	\$248.60	\$317.80



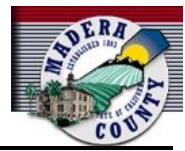
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K.4 Total Project Outlay Costs (Million)	\$153.12	\$116.03	\$303.40	\$398.42
K.5 Cost/Mile (Million)	\$37.19	\$27.86	\$36.77	\$27.89

Order of magnitude cost estimates for the four Alternative Corridors were estimated as follows:

- Alternative 5 - \$154 Million
- Alternative 6 - \$116 Million
- Alternative 7 - \$304 Million
- Alternative 8 - \$399 Million

One of the most significant differences between the four Alternatives is the variance in costs. Alternatives 5 and 6 are nearly half the cost of Alternative 7 and 8 due to the length and amount of roadway construction necessary to accomplish those projects. A complete cost data breakdown has been provide in Working Paper No. 4, Appendix F.



5.0 RECOMMENDED LOCALLY PREFERRED STRATEGY (LPS)

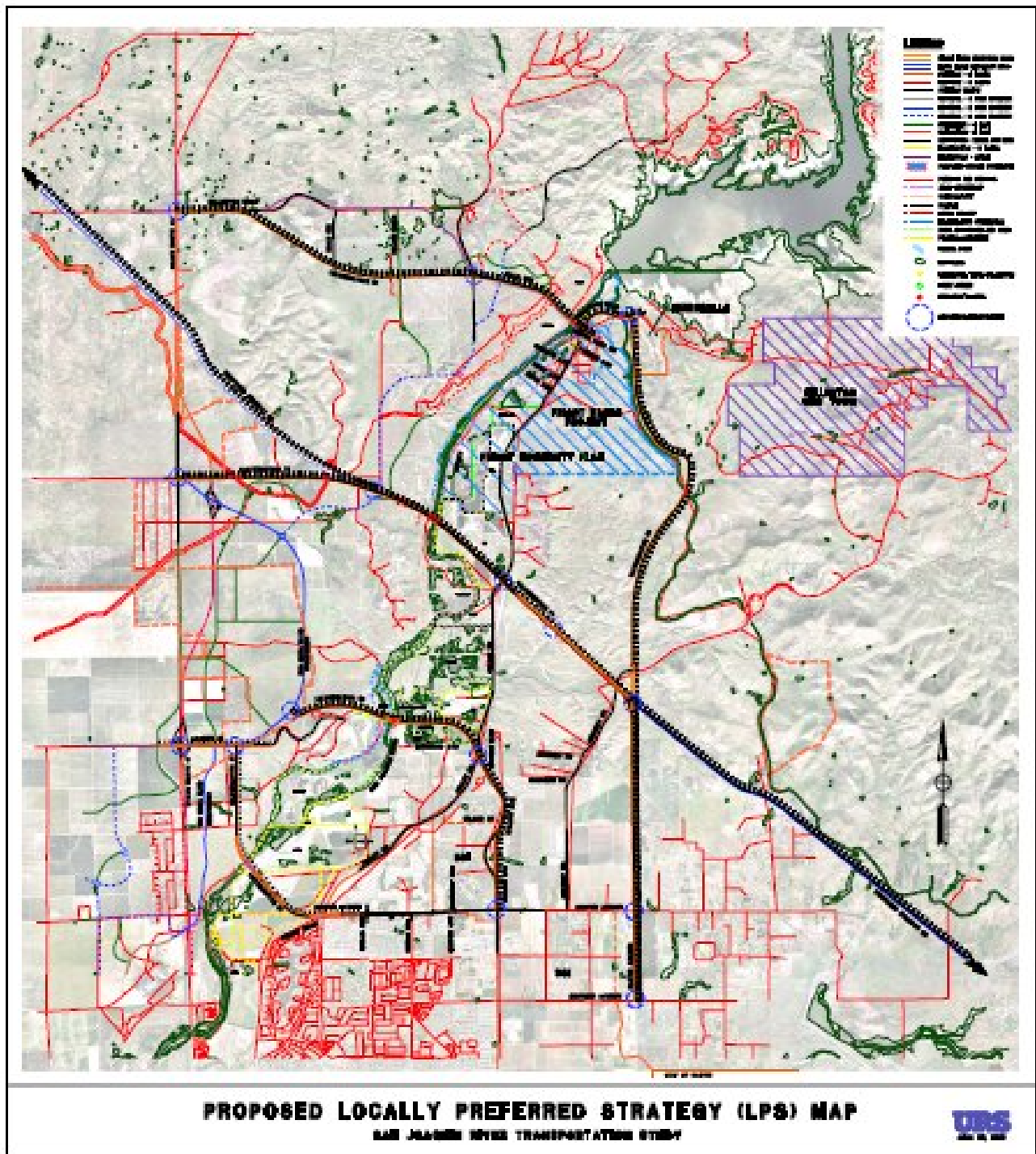
The SJRTS Technical Committee began the alternative screening process with more than 8 build alternatives including various alignment options and a no-build alternative. Based on this analysis, the Locally Preferred Strategy (LPS) as proposed would be the implementation of three river crossings including the development of one of the alternatives adjacent to the SR-41 crossing studied in Alternatives 5 or 6. Further analysis and study is needed to determine which of the two alignments would be most cost effective but this crossing would provide local access between the two counties from Rio Mesa to the city of Fresno and would take local trips off of SR-41. The LPS should also include the development of Alternative 7: the crossing from Avenue 15 to Auberry Road adjacent to Lost Lake that would tie into and require an extension of Clovis Avenue to the City of Clovis. This alignment would act as a regional high capacity crossing in the initial phases of development and would eventually become the proposed alignment of Highway 65 and an integral component of the Metro-Rural Loop. The final element of the LPS would be Alternative 8 and include the widening the Road 206 bridge, reconstruction of the intersection with Friant Road/Millerton Road and a new 6 Lane facility extending along the Friant-Kern canal around Friant Ranch south to Clovis Avenue with a future interchange at Highway 65. In essence this would provide a Locally Preferred Strategy with the capacity to enhance mobility in the future and take demand from the existing crossings that are available at the present.

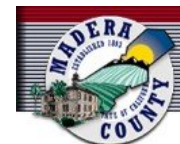
In summary, the recommended LPS should include the following improvements:

1. Development of a river crossing and associated alignment at one of Alternative 5: Copper Avenue or Alternative 6: Willow Avenue alignments. This improvement would provide a mid term circulation improvement that provides access between the proposed Rio Mesa Plan area in Madera County and the City of Fresno on the southern side of the river. This element of the LPS will require additional planning and discussion with the development community to determine the most cost effective alignment and crossing to provide local traffic benefits.
2. Development of a long term regional facility that would include an earlier phase to provide the crossing over the river in the Lost Lake area known as Alternative No. 7. This proposed alignment would eventually develop into the proposed State Highway 65 alignment that is needed as a long term inter-regional alternative to SR-99. The alternative should be developed to state highway standards and should be consistent with the planned Metro-Rural Loop system identified as part of the Compass Blueprint planning efforts being undertaken within the Valley at this time. The crossing and associated circulation system could be constructed earlier with the full state highway cross sections in order to provide for the future use. The facility will require 300 foot of right of way including a multi-modal envelope in the median.
3. The final element of the LPS would provide for a short term improvement of the Road 206 bridge and approaches in the Friant area. This alignment would provide a higher capacity connection from SR-145 to Friant/Millerton Road with improvements. It would potentially provide an extension of Millerton Road along the eastern side of the Friant-Kern Canal traveling south to Clovis Avenue.

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The following graphic illustrates the recommended LPS as identified in this section.





6.0 NEXT STEPS

This study has developed an Implementation Plan for the proposed LPS. A major challenge to implementation of the LPS will be the programming of funding for these projects. These short to long term projects all need funding beyond what is available in current Madera and Fresno County transportation plans. It will be necessary to define funding sources and develop a funding plan for each of the projects. The following next steps in the development of the LPS are recommended for consideration:

1. Utilize future planning efforts to model the proposed LPS and determine the cumulative impacts and benefits to the region.
2. Develop individual planning studies for each facility to define more detailed design requirements and identify benefits and impacts of each.
3. Identify funding sources for each project and begin the process of defining the total funding for these elements.
4. Begin the project initiation development process for each of the three LPS elements by development of the appropriate planning document for each facility (plan line, route concept report or development entitlement process). As part of this planning process, additional alternatives should be studies such as new urbanist land use planning techniques that could reduce the amount of future traffic and increase the use of alternative modes of transportation.
5. Use this document and future planning documents to provide a tool for preservation of right of way. This should be a high priority item since it is necessary to preserve the needed right of way of these facilities as soon as possible in order to insure that there will be room to construct these bridges and roadways in the future as funds become available.
6. Develop Memorandums of Understanding and agreements between agencies as appropriate for each of the three LPS elements in order to insure that each jurisdiction will take the appropriate measures to complete construction of the recommended LPS.
7. Prepare the preliminary engineering and environmental documents necessary to gain approval to construct these facilities and obtain funding. This will not be an easy task and could potentially take years. In the case of the future Highway 65 alignment, there may be a lack of public funds available and there is potential for this facility to be developed under a public-private partnership (PPP) or consortium relationship. In order for this to be studied in detail, the private partners will need to have some assurance that the project can be developed and environmental impacts can be mitigated.

This is a brief summary of the programming steps that may need to be followed in order to preserve right of way and fund construction of potential improvements that will provide improved mobility across the region. A preliminary implementation schedule for the LPS has been included in this section to provide a starting point for future discussion on a transportation program.



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